

# Spencer Eanes

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## EDUCATION

### ST. OLAF COLLEGE

Northfield, MN

Graduation: May 2020

#### DEGREES

B.A. Mathematics

B.A. Computer Science

Concentration in Statistics  
& Data Science

#### OVERALL

Cum. GPA: 3.88 / 4.0

Dean's List:

All semesters to date

### EVANSTON TWP. HS

EVANSTON, IL.

Graduated May 2016

with High Distinction

## COURSEWORK

#### IN PROGRESS

Differential Equations 2

Adv Statistical Modeling

#### COMPLETED

Algrms for Decision Making

Algrms & Data Structures

Statistical Modeling

Data Management

Linear Algebra

Calculus I-III

## SKILLS

#### LANGUAGES

R • Python • SQL

Mathematica • C++

#### TOOLS

Bash • Git • LaTeX

## OTHERS

### EXTRACURRICULARS

Studied abroad in

Aberdeen, Scotland

REAL Training

Tutoring

Stewardship Assistant

#### LINKS

SpencerEanes.org

linkedin.com/in/SpencerEanes

github.com/SpencerEanes

## EXPERIENCE

### ZS ASSOCIATES | DECISION ANALYTICS ASSOCIATE INTERN

JUNE – AUG 2019 | EVANSTON, IL

- Measured the business impact of a >\$100 million dollar patient services program of a F200 biopharma using test-control analyses on claim and patient level data.
- Created long-term forecast for the new formulation of a blockbuster immunology product; results presented to a brand senior VP.
- Communicated effectively in person and by email in client interactions, project presentations, and work handoffs with the India team.

### NATL. CENTER FOR EDUCATION STATISTICS | JPSM JUNIOR FELLOW

MAY – AUG 2018 | WASHINGTON, DISTRICT OF COLUMBIA

- Selected by University of Maryland Joint Program in Survey Methodology for Junior Fellow summer position, interning at NCES.
- Statistically analyzed federal datasets, 2015-16 School Survey on Crime and Safety and 2016 National Household Education Survey. Publication on cyberbullying and cell phone use from NCES in January 2019.

### ST. OLAF CENTER FOR UNDERGRADUATE RESEARCH | RESEARCHER

MAY – AUG 2017 | NORTHFIELD, MN

- 10-week team oriented research experience. Research was presented at the Northfield Research Colloquium and the Midstates Math Consortium.
- Investigated the use of lie symmetries in the invariantization of numerical schemes, and compared the accuracy of invariant vs. non-invariant numerical schemes applied to differential equations.

## PROJECTS

### POLYGON VISIBILITY WEB APP | DEVELOPER

MAY 2019 | COMPUTATIONAL GEOMETRY FINAL PROJECT

Implemented a fast polygon visibility graph algorithm to compute visibility edges between vertices of polygons in  $O(n^2 \log n)$  time. Built code in R using the SF package, and created an RShiny interactive web application, available at [SpencerEanes.org](http://SpencerEanes.org). Paper and code available at [github.com/SpencerEanes](https://github.com/SpencerEanes).

### MMA CLUSTERING ANALYSIS | ANALYST

MAY 2019 | ALGORITHMS FOR DECISION MAKING FINAL PROJECT

Scraped data on over 3000 UFC fighters from [ufcstats.com](http://ufcstats.com) using R. Cleaned and formatted the dataset and performed principal component analysis. Compared k-means clustering and hierarchical clustering, and predicted fighters win-loss ratio using penalized logistic regression. Results available at [SpencerEanes.org](http://SpencerEanes.org).

### COMAP ICM 2018 PROBLEM D | TEAM MEMBER

Developed a mathematical model to optimally placement of electric vehicle charging stations and proposed a plan to convert an nation from gas to electric vehicles.

## AWARDS

|      |               |   |
|------|---------------|---|
| 2018 | International | CoMAP ICM Competitor, Honorable Mention                 |
| 2017 | National      | USCLAP Introductory Statistics First Prize Winner       |
| 2016 | Institutional | St. Olaf Buntrock Scholar, Highest Academic Scholarship |
| 2016 | National      | National Merit Commended Scholar                        |